A photograph of a worker from behind, wearing a white hard hat and a dark safety vest over an orange long-sleeved shirt. The worker is looking towards a large, complex metal framework of a building under construction in a factory or industrial setting. The lighting is bright, and the background shows various structural elements and overhead lights.

FMI Labor Productivity Study Part 2: Prefabrication

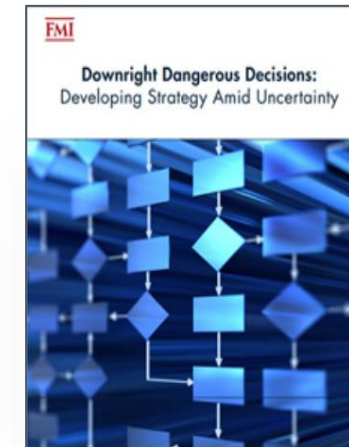
The Demand for Prefabrication

FMI Consulting

FMI Consulting has a deeper understanding of the Built Environment and the leading firms across its value chain than any other consulting firm. We know what drives value. We leverage decades of industry-focused expertise to advise on strategy, leadership & organizational development, compensation and operational performance.



Thought Leadership



FMI 2023 Labor Productivity Study: Part 1 and 2



2023 FMI LABOR STUDY



**Part 1:
September 2023**



2024 FMI LABOR PRODUCTIVITY STUDY
PART 2: PREFABRICATION



**Part 2:
May 2024**

What answers are we looking for?

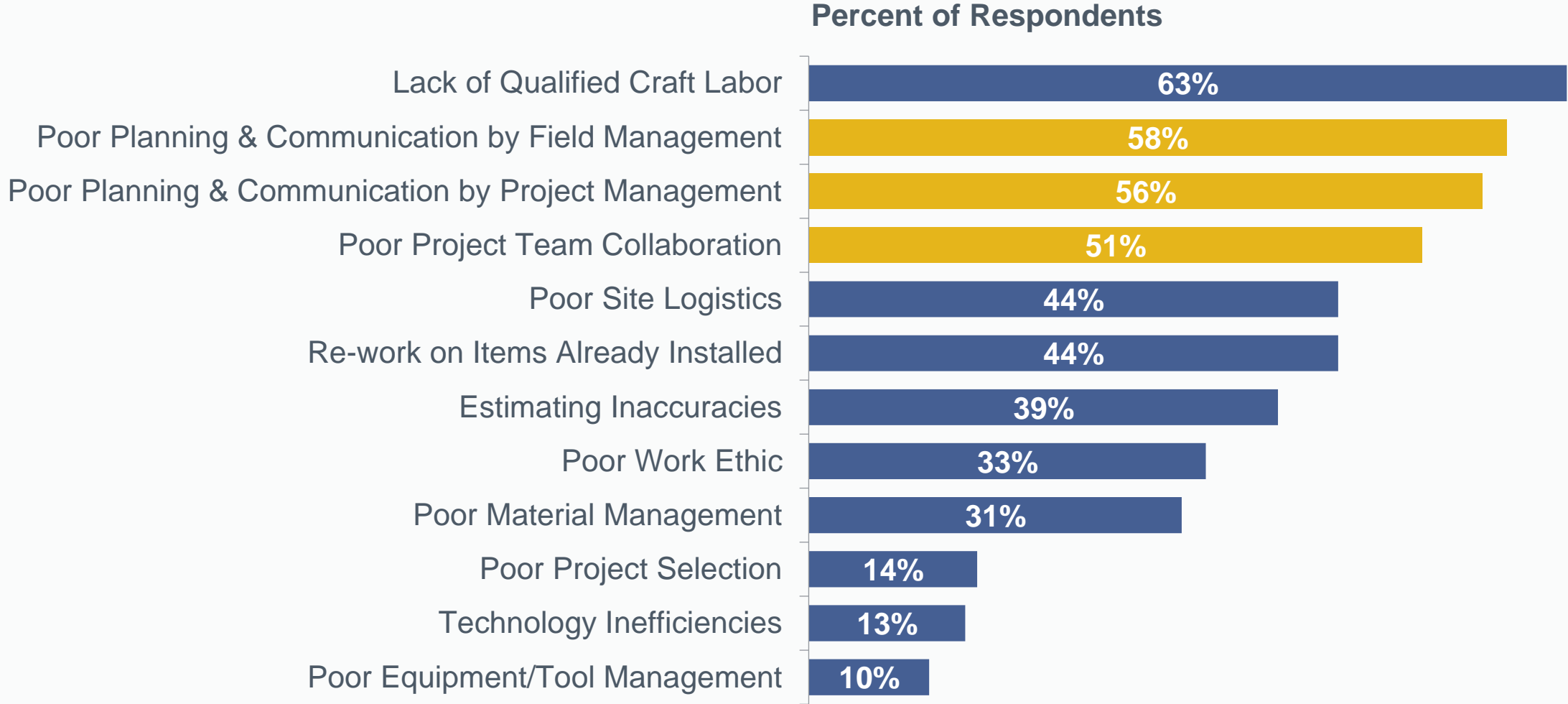
- Biggest Challenges
- Finding Success
- Best Practices
- Where Are the Opportunities?

How?

- Collected survey responses from **250+ executives**
- Wide range of **labor-intensive trades** represented
- Geographical presence across the country
- Wide array of company size
- Questions centered around how organizations manage their largest controllable cost: **labor**

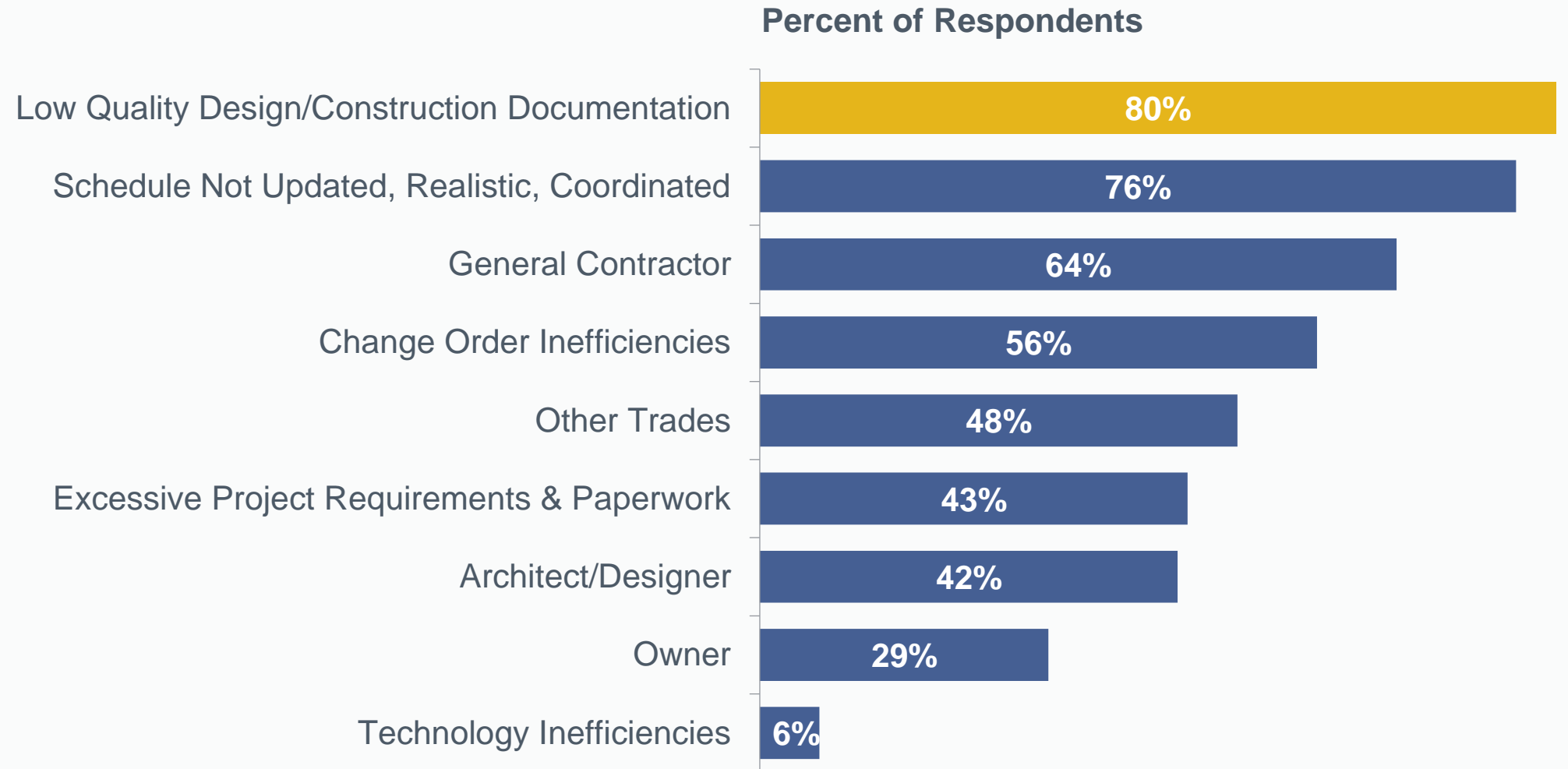
Top Internal Factors Negatively Impacting Productivity

3 of the top 4 internal factors negatively impacting field labor productivity are related to **planning, communication and collaboration**, all of which are variables contractors have direct control over.



Top External Factors Negatively Impacting Productivity

4 out of 5 contractors said that low quality design/construction documents is **a top external factor** negatively impacting productivity.



Labor Productivity Study: Part 2 Key Takeaways

The Demand for Prefabrication

Schedule compression creating unrealistic timelines that are **unachievable** without the use of **prefabrication**

Creating environments where **fewer skilled tradesmen** are needed on a project site

Notably, **few** respondents indicated that **demand** was coming from **design professionals** and **end users**

Demand Drivers

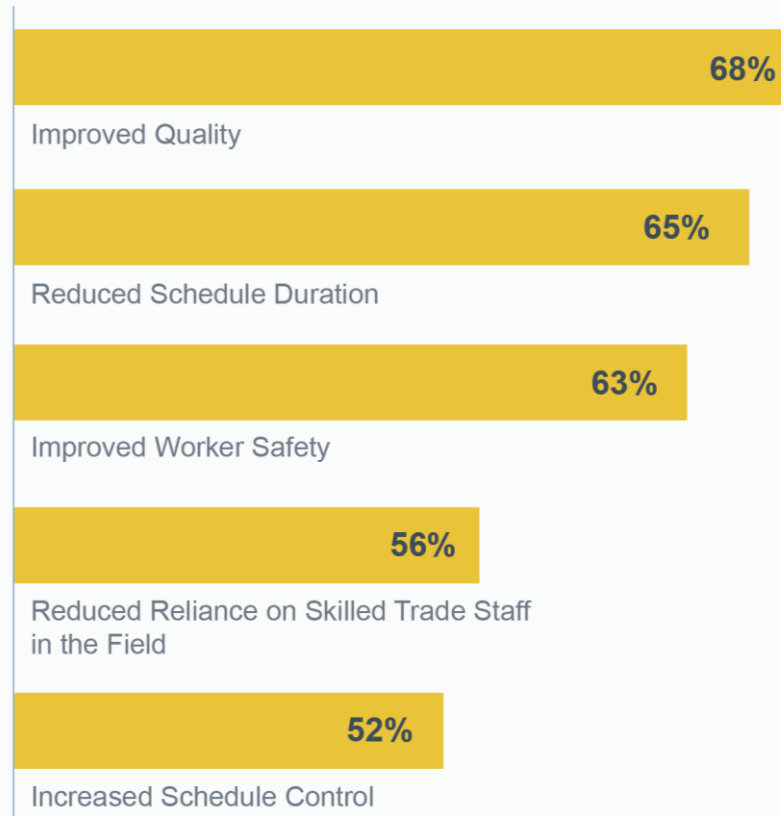


Source: FMI 2023 Labor Productivity Study

Labor Productivity Study: Part 2 Key Takeaways

Benefits of Prefabrication

Benefits



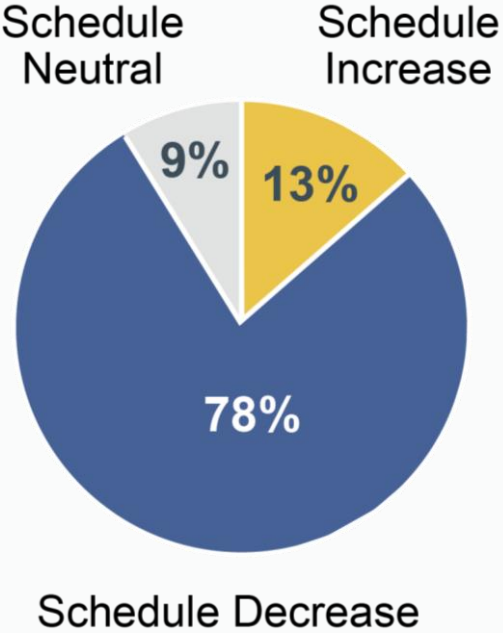
Increased quality by prefabricating assemblies in controlled, **safe environments** unimpacted by site conditions

Improved schedule durations, providing trade contractors additional **control** over project timelines

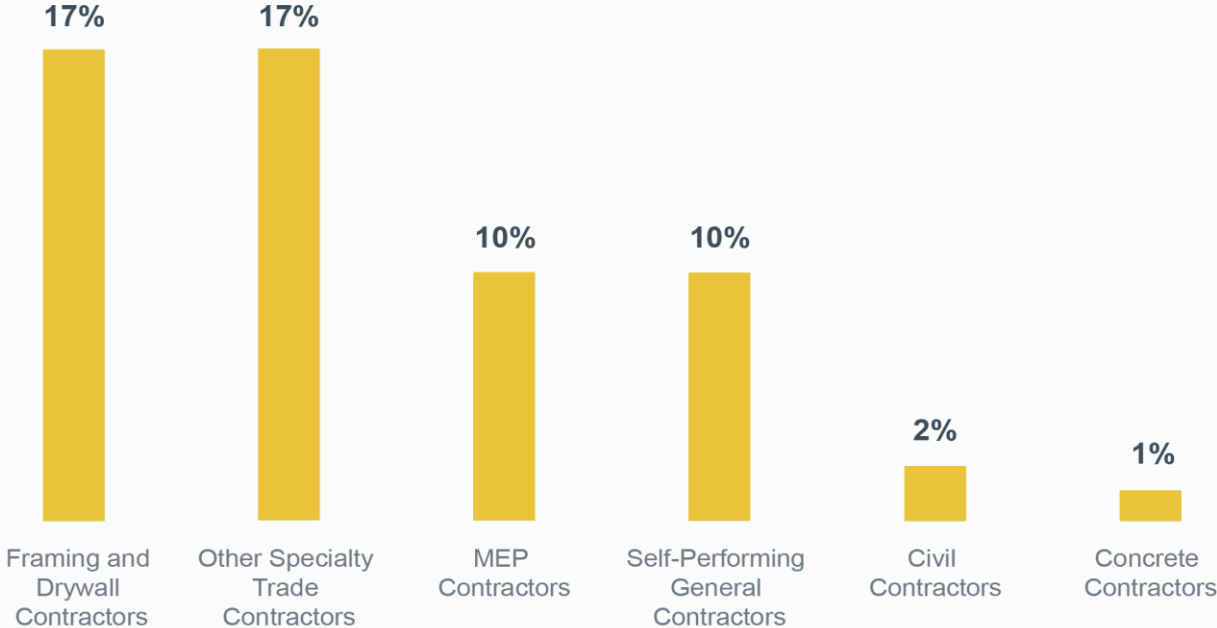
Decreased manpower needs from a quantity and skill perspective

Schedule Savings When Utilizing Prefabrication

Schedule Impact when Utilizing Prefabrication



Average Schedule Decrease when Utilizing Prefabrication

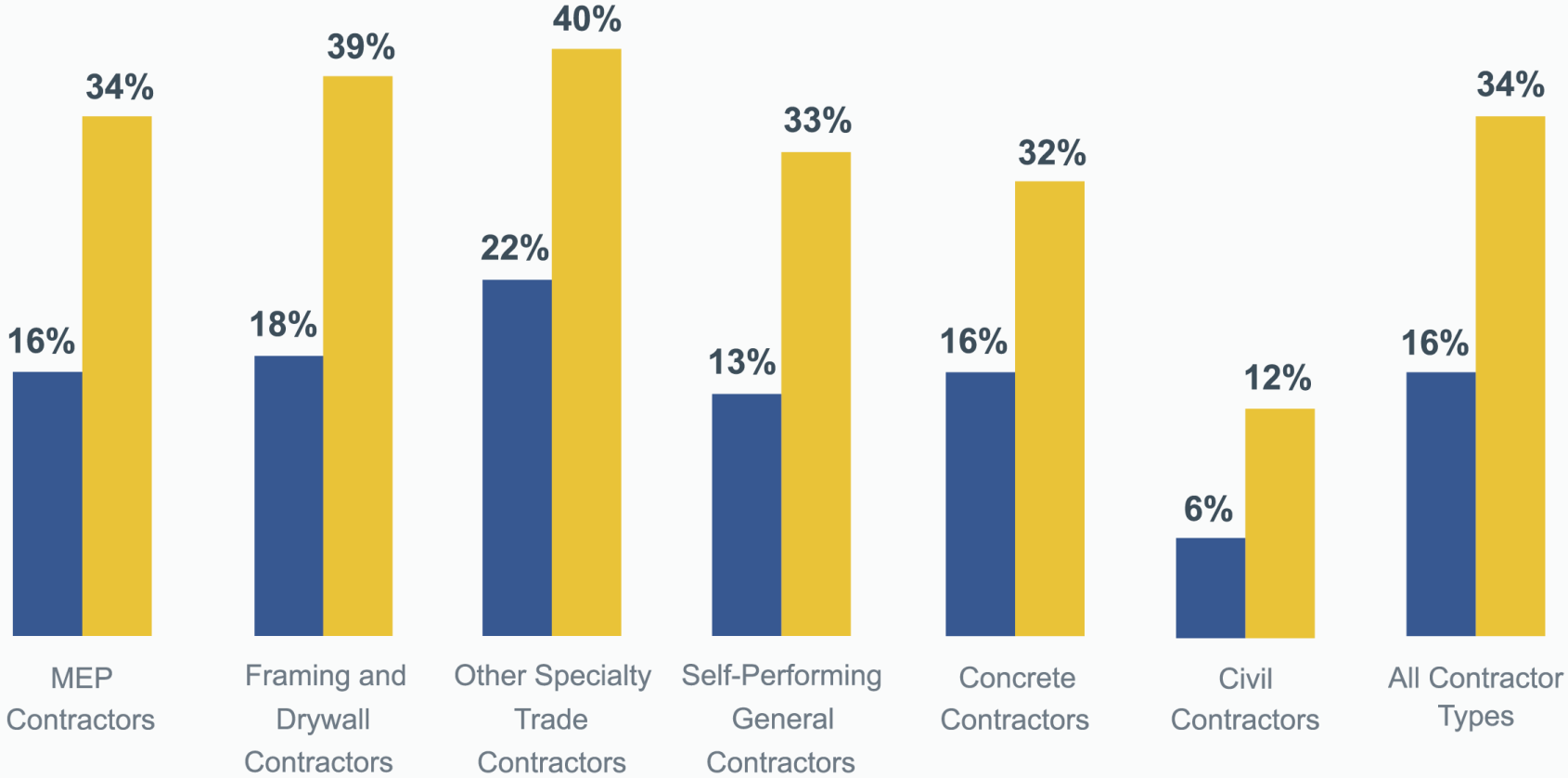


78% of contractors see schedule reductions when utilizing prefabrication, with **Framing and Drywall** contractors seeing the **largest improvement**

Source: FMI 2023 Labor Productivity Study

Craft Hours Spent in Prefabrication Today vs. Five Years From Now

■ % Hours in Prefab Today
■ % Hours in Prefab 5 Years From Now



Trade contractors expect **hours** spent in **prefabrication** to **double** over the **next 5 years**

Source: FMI 2023 Labor Productivity Study

Challenges to Increase Prefabrication



Design and Coordination



Stakeholder Awareness
and Education



Mindset and Culture



Upfront Investment

Owners and design professionals must **incorporate prefabrication** considerations **early** into **design efforts**. **Contractors** must be **involved** in the **design process** to optimize prefabrication **throughput**.

Contractors must move up the value chain to **end users and buyers** of construction services, **driving relationships** and **decision makers** on the **benefits** prefabrication brings to their projects.

Organizational shifts and cultural mindsets must change. We are not doing this to **remove hours** from the **field**, but to ensure we are staying on the **leading edge**.

Is our business ready for the **capital expenditures** required to build out a **manufacturing business**? Do we have a **plan** to successfully **implement** our strategies?

What's Next for Your Organization?

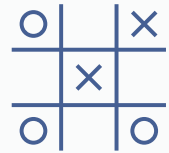
The Demand for Prefabrication

So, We Want to Prefabricate. What's Next?

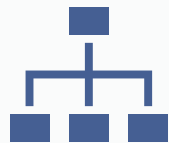
Key Considerations



Vision: Where are we taking this long term and why?



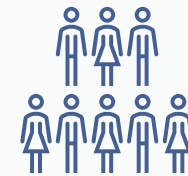
Strategy: How do we get from A to Z and what is the logical sequence?



Structure: What changes or additions are needed to our existing organization?



Business Model: Manufacturing is fundamentally different than construction



Talent: Where will we find the talent to run and work the prefabrication operations?



Process and Systems: What modifications or changes are needed in our existing operations?



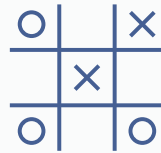
Culture: What are the cultural impacts to scaling prefabrication?

So, We Want to Prefabricate. What's Next?

Key Considerations



Vision and Strategy

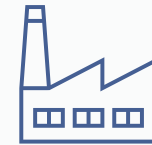


What do you want to be when you grow up?

Sound decision making, rationalized by your total addressable opportunity for prefabrication

Jim Collins: *“Bullets before cannonballs”*

Crawl before you can walk, walk before you can run



Construction vs Manufacturing

Volume-driven manufacturing vs margin-driven construction

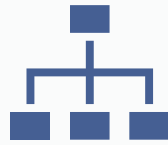
Fixed costs associated with manufacturing demand consistent, smooth demand. Construction is not.

Can we do enough volume to keep our facilities utilized?

Will we prefabricate for 3rd parties to increase throughput?

So, We Want to Prefabricate. What's Next?

Key Considerations



Structure

Is prefabrication a profit center or cost center? Is there clarity on this?

Part of the project team or treated as a subcontractor?

In-house only or provide services to 3rd parties?

Is this a separate business unit with P&L responsibility?



Process and Systems

Can construction or prefabrication say “no” to each other?

Who prices prefabrication? How is it estimated (cost and margin)?

Who owns material purchasing?

How do we hold each other accountable?

Who owns prefabrication cost overruns?

Clearly communicated structure, processes and systems will set the stage for a culture that can successfully embrace prefabrication.

So, We Want to Prefabricate. What's Next?

Key Considerations



Culture

Fear of removing hours (and jobs) out of the field

- Prefabrication improves contractor competitiveness and backlog – providing job security for the field
- What is our messaging and is it communicated properly?

Us vs Them – Issues will arise when implementing a new “thing.” Blame the other side on cost, schedule, quality concerns.

- Clear process, systems and structure leaves less room for finger pointing

Key Takeaways

Industry dynamics are continually **increasing** the **demand** for **prefabrication** – with contractors seeing prefabrication **hours double** over the next 5 years.

By utilizing **prefabrication**, trade contractors are increasing their **project control**, while improving **schedules, quality** and **safety**.

To **successfully implement** prefabrication, contractors must consider the **impacts** to their **organization** and provide clear **structure, process** and **communication** regarding the prefabrication strategy and vision.

Implementing strategy and change is **difficult**, but there are **compelling** reasons to lean into **prefabrication**.

Interested in discussing your **strategy** and **operational implications** of prefabrication in your business? **Contact** an **FMI** consultant.



2024 FMI LABOR PRODUCTIVITY STUDY
PART 2: PREFABRICATION





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FMI is a leading consulting and investment banking firm dedicated exclusively to the built environment. We serve as the industry's trusted advisor, providing current market insights, deep industry research and key relationships that deliver tangible results for our clients.

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